

WHAT IS CLAIMED IS:

1. A base station for assigning a radio communication channel preferentially to a mobile that is making an attempt to communicate with said base station and call an application that is given high priority.

2. The base station according to Claim 1, comprising a priority distinguishing means to distinguish the priority of the object application from signal data of radio channel assignment request sent from said mobile station.

3. The base station according to Claim 2, comprising a storage means to store mapping between a code representing an application to be offered to said mobile station over a radio communication channel, included in said signal data of radio channel assignment request, and the priority of the application.

4. The base station according to any of Claims 1, 2, and 3, wherein said base station assigns a plurality of radio communication channels to said base station that is making an attempt to communicate with said base station and call an application that is given high priority.

5. The base station according to Claim 4, comprising:

a means to measure radio communication quality of the channel between said base station and said mobile station; and

a control means to make said base station assign a plurality of radio communication channels to said mobile station on the basis of said priority when radio communication quality less than a predetermined quality-indicating-value has been measured by said means to measure radio communication quality.

6. The base station according to Claim 5, comprising a transmission/reception means to transmit/receive data of same contents over said radio communication channels.

7. The base station according to any of Claims 4, 5, and 6, wherein said radio communication channels are provided in time slots by time division.

8. The base station according to Claim 4, wherein said means to measure radio communication quality calculates a ratio of the received times slots in error to the number of received time slots for a regular period.

9. The base station according to Claim 3, comprising a paging means for broadcasting the paging information on available applications.

10. The base station according to Claim 2, wherein said storage means is to retain different priority from that

retained in its adjoining base station even if said priority is given to a same application that both base stations offer it over their communication channels.

11. A mobile station for sending a base station signal data of radio channel assignment request including a code representing an application to be offered over a radio communication channel.

12. The mobile station according to Claim 11, comprising

a control means for handling data transmission/reception over a plurality of radio communication channels including additional channels when it is notified that additional channels are assigned to it from said base station.

13. The mobile station according to Claim 12, comprising

a control means for selecting and handling data received over a channel that is regarded as being the most reliable out of the data received over a plurality of radio communication channels assigned to it.

14. A digital radio communication system for multi-applications comprising a base station and a plurality of mobile stations, wherein:

the mobile stations send the base station signal data of radio channel assignment request including a code

representing an application to be offered over a radio communication channel;

the base station comprises

a means of distinguishing the priority of the application, based on the code representing the application included in said signal data of radio channel assignment request sent from the mobile stations; and

a means of assigning one radio communication channel or a plurality of channels to the mobile stations, based on said priority, according to said signal data of radio channel assignment request sent from the mobile stations;

at least either said base station or each mobile station comprises a function of measuring the radio communication quality of the channel therebetween;

the base station further comprises

a means to implement that if predetermined radio communication quality is not attained in a radio communication channel to be used for a higher priority application, in addition to the pre-assigned channel, new channels are reassigned to the mobile station using that channel so that same contents will be transmitted over a plurality of channels for a regular period.

15. The digital radio communication system for multi-applications according to Claim 14, wherein said

radio communication channels are provided in time slots by time division.

16. The digital radio communication system for multi-applications according to Claims 14 and 15, wherein said function of measuring the radio communication quality determines a ratio of the received times slots in error to the number of received time slots for a regular period as the quality indicator.

17. The digital radio communication system for multi-applications according to Claims 14, 15, and 16, wherein the system comprises a paging means for broadcasting the paging information on available applications.

18. The digital radio communication system for multi-applications according to Claims 14, 15, 16, and 17, wherein a specific application service area comprises two or more contiguous cells.

19. The digital radio communication system for multi-applications according to Claim 17, wherein the system comprises a means to implement that in a specific application service area constituted of two or more contiguous cells, different settings of the radio channel assignment priority of the application are to be assigned to the cells, according to the cell position along the direction in which mobile stations normally move.